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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/552,481	03/14/2007	Thomas Wigger	125215	7244
27049	7590	05/13/2010		
OLIFF & BERRIDGE, PLC P.O. BOX 320850 ALEXANDRIA, VA 22320-4850			EXAMINER SELLERS, ROBERT E	
			ART UNIT 1796	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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1. This application contains claims 15 and 16 drawn to inventions nonelected with traverse in the reply filed on November 23, 2009. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.
2. The obviousness-type double patenting rejection over copending application no. 10/552,482 is rescinded due to the terminal disclaimer filed April 21, 2010.]
3. The rejections involving the Journal of Applied Polymer Sciences article by Lin et al. and PCT Publication No. WO 00/01659 are withdrawn since there is no recitation of the Mannich base prepared from the phenolic compound of formula (I) or (II) from cancelled claim 2 inserted into independent claim 1 via the amendment filed April 21, 2010.

The text of section 103(a) of Title 35, U.S. Code not included in this action can be found in the non-Final rejection filed January 21, 2010.

Claims 1-14 and 17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japanese Patent No. 6,172,498, Ogawa et al. Patent No. 5,075,411 and Golden Patent No. 5,001,193.

The rejections have been restructured in response to the insertion of the Mannich base reactants of cancelled claim 2 into independent claim 1. The rejection is maintained for the reasons of record set forth in the non-Final rejection. The arguments filed April 21, 2010 have been considered but are unpersuasive.

Art Unit: 1796

4. The claimed glass transition temperature (T_g) of more than 80°C after curing at between 5°C and 60°C is a conditional limitation upon the curing of the composition and is not required since the claims are directed to the composition itself. Even if considered, the T_g 's of the Japanese patent, Ogawa et al. and Golden inherently fall within the claimed range based on formulations equivalent to that claimed containing an epoxy resin and a Mannich base derived from a phenol such as the preferred m-cresol of Ogawa et al. (col. 3, lines 59-60 and col. 6, Referential Example 2, polyamine reaction composition 2) within the claimed phenolic compound of formula (I), formaldehyde and a polyamine curable at room temperature (Ogawa et al., col. 7, lines 12-13) if the curing time is not critical.

5. The two-stage reaction of the Mannich base of claim 4 constitutes a product-by-process claim. According to MPEP § 2113, Product-by-Process Claims: Product-By-Process Claims are not Limited to the Manipulations of the Recited Steps, Only the Structure Implied by the Steps: "[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." (*In re Thorpe*, 227 USPQ 964, 966, Federal Circuit 1985).

“[T]he burden shifts to applicant to come forward with evidence establishing an unobvious difference between the claimed product and the prior art product.”

(MPEP § 2113, Burden Shifts to the Applicant to Show an Unobvious Difference and *In re Marosi*, 218 USPQ 289, 292, Federal Circuit 1983).

6. Based on the equivalent m-cresol, formaldehyde and polyamine reactants employed in the preparation of the Mannich bases of the prior art and claims, the Mannich bases of the Japanese patent, Ogawa et al. and Golden inherently produce cured compositions with Tg's within the claimed parameters. The burden of proof shifts to applicant to distinguish the Mannich base produced by the two-step process of claim 4 over those of the references.

7. The evidence set forth in Table 5 on page 15 of the specification is inconclusive since MB10 obtained via a 1-stage reaction utilizes 3,5-xyleneol which is not representative of the closest prior art m-cresol of Ogawa et al. Furthermore, the showings are not commensurate in scope with the claims because the testing of a single 1,2-diaminocyclohexane (DCH, page 12, line 18) does not establish the criticality of the myriad structurally and functionally distinct species of polyamines defined in claim 18. This does not affect the lack of patentability of claim 1 along with claims 3, 6-14 and 17 dependent thereon.

Art Unit: 1796

The amendment necessitated the new ground of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL** (MPEP § 706.07(a)). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

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Monday to Friday, 9:30 to 6:00

/Robert Sellers/
Primary Examiner
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5/10/2010